

© EPODOC / EPO

PN - JP10132561 A 19980522

- SURVEYING EQUIPMENT HAVING AF FUNCTION

- G01C5/00&T; G01C3/06&P; G03B3/00&A; G02B7/11&B; G03B13/20

PA - ASAHI SEIMITSU KK

- KOJIMA YOICHI;SUZUKI SHINICHI; TAKAYAMA MOCHIYUME

AP - JP19960283675 19961025

PR - JP19960283675 19961025

DT - |

none

© WPI / DERWENT

AN - 1998-351266 [31]

Optical wave range finder with automatic focussing function - includes a
focus-lens drive unit which drives focus lens system based on detected focal
condition in conjugate surface of focal board

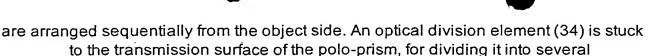
- JP10132561 The device has a polo prism (33), a focal lens system (31), an erect optical system, a focal board (35) and an eye piece system (37), which are arranged sequentially from the object side. An optical division element (34) is stuck to the transmission surface of the polo-prism, for dividing it into several transmission surfaces.
 - The division beam divided by the optical division element is drawn ahead from the polo prism by a reflecting element. An AF sensor detects the focal condition in a conjugate surface (35C) of the focal board. A focus lens drive unit (27) drives the focus lens system depending on the output of the AF sensor.
 - ADVANTAGE Reduces size of branch optical system. Simplifies structure.
 - (Dwg.1/19)

 OPTICAL WAVE RANGE FINDER AUTOMATIC FOCUS FUNCTION FOCUS LENS DRIVE UNIT DRIVE FOCUS LENS SYSTEM BASED DETECT FOCUS CONDITION CONJUGATE SURFACE FOCUS BOARD

- PN JP3154047B2 B2 20010409 DW200122 G01C3/06 008pp
 - JP10132561 A 19980522 DW199831 G01C3/06 008pp
 - US5936736 A 19990810 DW199938 G01B11/14 000pp
- G01B11/14;G01C3/06;G01C5/00;G02B7/32;G02B27/40;G03B13/20;G03B13/36
- мс S02-A03B2 S02-B01 S02-B09
- DC P81 P82 S02
- PA (ASAH-N) ASAHI SEIMITSU KK
- IN KOJIMA Y; SUZUKI S; TAKAYAMA H
- US5936736 The device has a polo prism (33), a focal lens system (31), an erect optical system, a focal board (35) and an eye piece system (37), which

AB





- The division beam divided by the optical division element is drawn ahead from the polo prism by a reflecting element. An AF sensor detects the focal condition in a conjugate surface (35C) of the focal board. A focus lens drive unit (27) drives the focus lens system depending on the output of the AF sensor.
- ADVANTAGE Reduces size of branch optical system. Simplifies structure.
- JP19960283675 19961025; [Previous Publ. JP10132561] ;JP19960283675 19961025;US19970827389 19970327
- PR JP19960283675 19961025; JP19960258481 19960930 © PAJ / JPO

PN - JP10132561 A 19980522

transmission surfaces.

- SURVEYING EQUIPMENT HAVING AF FUNCTION

- PROBLEM TO BE SOLVED: To avoid the enlargement of the whole surveying equipment by forming one of reflecting surfaces of a POR constituting an erect optical system of a semi-transmitting surface, sticking an optical splitting element thereto, and introducing a split luminous flux forward to detect the focused state by an AF (automatic focus) sensor.

- SOLUTION: An intended luminous flux incident from an objective lens 15 is transmitted by a dichroic prism 13 to image an erect actual image on or around a reticle 35 through a focus lens 31 and a POR 33. The reticle 35 has a ranging mark which forms a target for emitting a ranging light, and the azimuth or elevation of a collimator is regulated so that the intended subject is situated within the ranging mark. On an optical path branched by a light splitting prism 34, an AF sensor 41 for detecting the focal state in a conjugate plane 35C conjugate with the reticle 35 is provided, and its light received signal is outputted to a focal state arithmetic part 42. For the movement control of the focus lens 31, automatic focus or distance-priority focus mode is selectable, and an optional movement by a manual focus device 28 can be also adapted.
- G01C3/06 ;G01C5/00 ;G02B7/32 ;G03B13/36

PA - ASAHI SEIMITSU KK

SUZUKI SHINICHI;KOJIMA YOICHITAKAYAMA MOCHIYUME

ABD - 19980831

ABV - 199810

AP - JP19960283675 19961025

1

